

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number
WO 2005/011656 A2

- (51) International Patent Classification⁷: **A61K 31/00**
- (21) International Application Number:
PCT/US2004/024657
- (22) International Filing Date: 29 July 2004 (29.07.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
- | | | |
|------------|---------------------------|----|
| 60/491,116 | 30 July 2003 (30.07.2003) | US |
| 60/491,118 | 30 July 2003 (30.07.2003) | US |
| 60/491,340 | 30 July 2003 (30.07.2003) | US |
- (71) Applicant (*for all designated States except US*): **XENON PHARMACEUTICALS INC. [CA/CA]**; 3650 Gilmore Way, Burnaby, British Columbia V5G 4W8 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **ABREO, Melwyn** [US/US]; 3373 Armagosa Way, Jamul, California 91932 (US). **HARVEY, Daniel, F.** [US/US]; 6254 Lakewood Street, San Diego, California 92122 (US). **GSCHWEND, Heinz W.** [US/US]; 161 Meadowcroft Way, Santa Rosa, California 95403 (US). **LI, Wenbao** [CN/US]; 11674 Castle Way, San Diego, California 92128 (US). **TU, Chi** [US/US]; 5269 Quaker Hill Lane, San Diego, California 92130 (US). **KAMBOJ, Rajender** [CA/CA]; 5809 Sperling Avenue, Burnaby, British Columbia V5E 2T6 (CA). **WINTHER, Michael D.** [CA/CA]; 1935 West 4th Avenue, Vancouver, British Columbia V6J 2K1 (CA). **KODUMURU, Vishnumurthy** [CA/CA]; 211-6577 Royal Oak Avenue, Burnaby, British Columbia V5H 3P3 (CA). **HUDSON, Cindy, J.**, [US/US]; 8031 San Leandro Cir., Buena Park, California 90620 (US). **KONDRATENKO, Mikhail, A.**, [RU/US]; 12820 Via Nieve #73, San Diego, California 92130 (US). **LIU, Shifeng** [CA/CA]; 15-2615 Fortress Drive, Port Coquitlam, British Columbia V3C 6E8 (CA). **RAINA, Vandna** [IN/CA]; PH3, 2763 Chandelier Place, Vancouver, British Columbia V5S 4V4 (CA). **SVIRIDOV, Serguei** [CA/CA]; 1904-5885 Olive Avenue, Burnaby, British Columbia V5H 4N8 (CA). **ZHANG, Zai-hui** [CA/CA]; 4038 MacDonald Street, Vancouver, British Columbia V6L 2N9 (CA). **SEID BAGHERZADEH, Mehran** [CA/CA]; 10-901 West 17th Street, North Vancouver, British Columbia V7P 1V8 (CA). **SUN, Shaoyi** [CA/CA]; #407-1029 East Broadway, Vancouver, British Columbia V5T 1Y8 (CA).
- (74) Agents: **ROTH, Carol, J. et al.**; Seed Intellectual Property Law Group PLLC, Suite 6300, 701 Fifth Avenue, Seattle, Washington 98104-7092 (US).
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

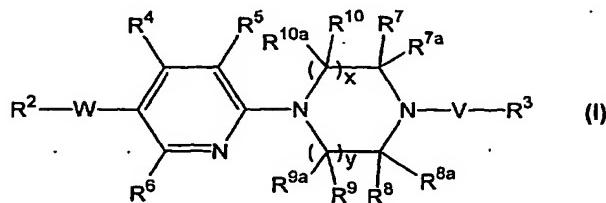
— *of inventorship (Rule 4.17(iv)) for US only*

Published:

— *without international search report and to be republished upon receipt of that report*

[Continued on next page]

(54) Title: PYRIDYL DERIVATIVES AND THEIR USE AS THERAPEUTIC AGENTS



(57) Abstract: Methods of treating an SCD-mediated disease or condition in a mammal, preferably a human, are disclosed, wherein the methods comprise administering to a mammal in need thereof a compound of formula (I): wherein: W is -O-, -N(R1)-, C(O), S(O)_t; (where t is 0, 1 or 2), N(R1)S(O)₂, S(O)2N(R1), C(O)N(R1) or N(R1)CO(N(R1)); and V is C(O), C(S), C(O)N(R1), C(O)O, S(O)₂, S(O)2N(R1)- or C(R11)H; and x, y, R1, R2, R3, R4, R5, R6, R7, R7a, R8, R8a, R9, R9a, R10 and R10a are defined herein. Pharmaceutical compositions comprising the compounds of formula (I) are also disclosed.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.